Name:

Date:

1. What are the two measures of **center** for a data set?
2. When should you use each measure?   
     
   You should use when   
     
   You should use when
3. Draw a picture of a histogram or boxplot, or make up a set of numbers that would be **best represented** by the **mean**.
4. Draw a picture of a histogram or boxplot, or make up a set of numbers that would be **best represented** by the **median**.
5. Tell **in your own words** what the **mean** is.
6. Tell **in your own words** what the **median** is.
7. What are the two measures of **spread** for a data set?
8. When should you use each measure?   
     
   You should use when   
     
   You should use when
9. Draw a picture of a histogram or boxplot, or make up a set of numbers that would be **best represented** by the **standard deviation**.
10. Draw a picture of a histogram or boxplot, or make up a set of numbers that would be **best represented** by the **IQR**.
11. Tell **in your own words** what the **standard deviation** is.
12. Tell **in your own words** what the **IQR** is.
13. Find the **mean** and **standard deviation** of each data set below:  
    1. 2, 3, 3, 4, 5, 6, 7, 8, 8, 9
    2. 52, 53, 53, 54, 55, 56, 57, 58, 58, 59
    3. These two data sets have **different means** but the **same standard deviation**. How can that happen?
14. Find the **mean** and **standard deviation** of each data set below:  
    1. 60, 72, 76, 83, 94
    2. 75, 76, 77, 78, 79
    3. These two data sets have the **same mean** but **different standard deviations**. How can that happen?
15. What is the only kind of number that **standard deviation** cannot be? Why?
16. The values below are the community service hours for Delta Statistics for the first semester.

0 4 4 10 15 17 30 36 54 58   
67 71 85 100 102 103 125 125 219

* 1. Make a **histogram** or **boxplot** of these data.
  2. Find the **mean** and **standard deviation** of the data.
  3. Find the **median** and **IQR** of the data.
  4. Which **measure of center** (**mean** or **median**) should we use to describe these data?   
     Explain why you chose that measure.